



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,308	03/13/2004	Daniel E. Cooney	11960	7830

26587 7590 04/04/2006

MCNEES, WALLACE & NURICK LLC
100 PINE STREET
P.O. BOX 1166
HARRISBURG, PA 17108-1166

EXAMINER

DAVIS, OCTAVIA L

ART UNIT	PAPER NUMBER
----------	--------------

2855

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/799,308

Applicant(s)

COONEY, DANIEL E. 

Examiner

Octavia Davis

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/13/06.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/13/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 6 and 8 – 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Vincent et al (3,906,123).

Regarding claims 1 and 6, Vincent et al disclose a self-contained pressure sensitive record system comprising a material (paper) having a surface, an indicator coating having an impact-sensitive component that produces a visible change when subjected to a mechanical impact, applying the coat to the surface of the material (See Col. 4, lines 1 –13) and subjecting the material to a load and inspecting the material having the indicator paint thereon for the presence of the visible change (See Col. 6, lines 18 – 28).

Regarding claim 8, the first reactant and the second reactant react together to produce the visible change upon the impact (See Col. 4, lines 25 – 42).

Regarding claims 9 and 10, the coating is a light absorbing material that includes a dye (See Col. 4, lines 6 – 13 and 33 – 36).

Regarding claim 11, the material is accurately monitored during a series of tests (See Col. 6, lines 34 – 66 and Col. 7, lines 1 – 54).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Patel (5,254,473).

Regarding claim 20, Patel discloses a solid state device for monitoring integral values of time and temperature of storage of perishables comprising a substrate 3 having a surface, a coat applied to the surface that includes microcapsules having reactants 6, 7 and a matrix and binding agent 6 wherein the microcapsules are mixed with and embedded in the matrix (See Col. 8, lines 21 – 25) and the reactants produce a color change in the coat when mixed (See Col. 7, lines 19 – 46, 67 and 68 and Col. 8, lines 1 – 35).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 21 – 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamura et al (4,618,529).

Regarding claim 21, Yamamura et al disclose a fiber reinforced ceramic composite material comprising means for setting a first design standard for a ceramic material having an indicator

Art Unit: 2855

coating applied thereto (See Col. 4, lines 58 – 68, Col. 5, lines 21 – 40 and Col. 6, lines 52 – 53), wherein the indicator coating has an impact-sensitive component that produces a visible change when subjected to a mechanical impact and setting a second design standard for the ceramic material which does not have the indicator paint applied thereto (See Col. 6, lines 52 – 64).

Regarding claims 22 and 23, setting the first design standard with a unity damage-tolerance factor KIC and wherein the step of setting the second design standard includes the step of setting the second design standard with a damage-tolerance factor greater than unity and greater than the first damage tolerance factor (See Col. 6, lines 51 – 68 and Col. 7, lines 1 – 36).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2 – 5, 14 – 17 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vincent et al in view of Szweda et al (5,488,017).

Regarding claims 2 – 5, 14 and 24, Vincent et al disclose all of the limitations of these claims except for a teaching that the material has a tensile elongation to failure of less than about 2 percent. However, Szweda et al disclose a fiber reinforced ceramic matrix composite member comprising a reinforced ceramic matrix composite member represented by curve 2 having a percent elongation of failure in excess of about 0.4% (See Col. 8, lines 21 – 23).

Art Unit: 2855

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Vincent et al according to the teachings of Szweda et al for the purpose of, producing ceramic composite articles including a method of controlling the porosity in the matrix of a ceramic matrix composite material to curb undesirable porosity (See Szweda et al, Col. 3, lines 24 – 28).

Regarding claims 15 and 16, in Vincent et al, the coating is a light absorbing material that includes a dye (See Col. 4, lines 6 – 13 and 33 – 36).

Regarding claim 17, in Vincent et al, the material is accurately monitored during a series of tests (See Col. 6, lines 34 – 66 and Col. 7, lines 1 – 54).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 12, 13, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vincent et al and Szweda et al, as applied to claims 1 – 11 and 14 – 17 above, and further in view of Yamamura et al (4,618,529).

Regarding claims 12, 13, 18 and 19, Vincent et al and Szweda et al disclose all of the limitations of these claims except for teachings that design limits are determined for the composite, low ductility, polymer-matrix and ceramic material when the material has or does not have the paint applied thereto and the material having a tensile elongation to failure factor of less than about 2

Art Unit: 2855

percent. However, Yamamura et al disclose a fiber-reinforced ceramic composite material comprising steps for determining a design criteria for the ceramic composite material including analyzing various properties of the material to achieve a desired composite material (See Col. 6, lines 52 – 64 and Cols. 11 and 12, Table 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Vincent et al and Szweda et al according to the teachings of Yamamura et al for the purpose of, providing a ceramic composite material with a critical stress factor to achieve a great improvement in the inherent brittleness and non-uniformity in the mechanical strength of ceramics and a composite material that is suitable for used as a structure material (See Yamamura et al, Col. 7, lines 26 – 36).

Response to Arguments

11. Applicant's arguments with respect to these claims have been considered but are moot in view of the new grounds of rejection.

Applicant's arguments filed 1/13/06 have been fully considered but they are not persuasive. In response to applicant's arguments that the references do not disclose "*an indicator paint that is a mixture of a first reactant and a second reactant*" and a "*first design standard or a second design standard*", it is the examiner's position that in Vincent et al the three layered pressure sensitive system, including a substrate such as paper (See Col. 4, lines 39 – 42), undergoes a localized pressure wherein particles of a reactant are pushed through a rupturable pressure sensitive barrier coating and capsule walls to release an oily solution or droplets for reaction with acidic clay particles resulting in a distinctive color image (See Col. 6, lines 19 – 28 and 49 – 68 and Col 7, lines 24 – 32) and in Yamamura et al, during the production of the composite material, the fibers have a specific critical stress intensity

Art Unit: 2855

factor KIC that is measured and the bending strength ratio is determined (See Col. 6, lines 52 – 61 and Col. 7, lines 25 – 36) to provide a composite material having good uniformity in mechanical strength and excellent reliability and having excellent thermal shock resistance (See Col. 2, lines 16-18), thus the references still stand.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Octavia Davis whose telephone number is 571-272-2176. The examiner can normally be reached on Mon through Thurs from 9 to 5. The examiner can also be reached on alternate Fridays.

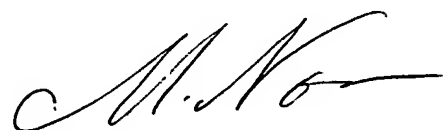
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz, can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



OD/2855

3/28/06



**MAX NOORI
PRIMARY EXAMINER**